

GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DIRECTOR GENERAL  
WEST BENGAL FIRE & EMERGENCY SERVICES  
13-D, Mirza Ghalib Street, Kolkata - 700 016

Memo No. : WBFES/ 3483 /18/Kol/RB/355/12 Part (1126/13)

Date: 18.06.18

From : Deputy Director (Head Quarter)  
West Bengal Fire & Emergency Services

To : R. G. Pasari, Director  
Rajat Gateway Pvt. Ltd.  
4, Azimganj House  
1<sup>st</sup> Floor, 7, Camac Street,  
Kolkata - 700 017


Sub : Revised Fire Safety Recommendation for proposed construction of G+XV storied Residential Building comprising of Block - I & II under group Residential Building, at premises no. - 1066, Dag Nos. - 649 (P), 650, 650/997, 650/998, 651, 652, 653 (P) & 654, Khatian No. - 83, 95, 183, 198, 187 & 446, JL No. - 21, Mouza - Joka, PS - Thakurpukur, Dist. - South 24 Parganas, 73, Diamond Harbour Road, Kolkata - 700 104.

This is in reference to your letter No. - Nil dated: 05/03/2018 regarding Revise Fire Safety Recommendation for proposed construction of G+XV storied Residential Building comprising of Block - I & II under group Residential Building, at premises no. - 1066, Dag Nos. - 649 (P), 650, 650/997, 650/998, 651, 652, 653 (P) & 654, Khatian No. - 83, 95, 183, 198, 187 & 446, JL No. - 21, Mouza - Joka, PS - Thakurpukur, Dist. - South 24 Parganas, 73, Diamond Harbour Road, Kolkata - 700 104.

The revised plan drawings submitted by you were scrutinized and marked as found necessary from fire safety point of view. In returning one set of plan with recommendation, this office is issuing Revised Fire Safety Recommendation in favour of the aforesaid building subject to the compliance of the following fire safety measures.

Encl. :

1. One set of plan.
2. Recommendation

  
Deputy Director (Head Quarter)  
West Bengal Fire & Emergency Services

## RECOMMENDATION

### A. CONSTRUCTION:

1. The whole construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body (Kolkata Municipal Corporation).
2. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
3. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
4. Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.
5. Roof is used as a refuge area in case of an emergency and it should be clear open for all time. No permanent or temporary structure will be allowed on the roof.

### B. OPEN SPACE & APPROACH:

1. The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility.
2. The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
3. The width and height of the access gates into the premises shall not be less than 4.5 - 5 M respecting abutting the road.

### C. STAIRCASE:

1. The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / R.C.C. type having Fire resisting capacity not less than 4 hours.
2. The staircase of the building shall have permanent vents at the top and openable sashes at each floor level in the external wall of the building.
3. The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules with up-to-date amendments.
4. All the staircase shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
5. Fire and smoke doors at the entrances of all the Staircase enclosures as marked in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire resisting wire glass window fitted with self-closing type openable in the direction of escape.

### D. AUDITORIUM & HALL:

The doors/aisles/seating arrangement/corridors in hall shall be made as per good practices of National Building Code Part-IV, 2016. Fire Protection as well as the conforming norms with up to date amendment.

### E. LIFT:

1. The walls of the lift enclosure shall be at least two hours Fire resisting type.

2. Collapsible gate shall not be permitted.
3. One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.

F. REFUGE AREA:

1. The Refuge area on calculating the area at the rate of 0.3 m<sup>2</sup>/ person on the basis of floors area shall be provided on the external wall as cantilever projection or any other suitable means at above 24.5m. & 39.5m. levels of the buildings.
2. The refuge area shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridor or the staircase lobbies.
3. The position of refuge Areas shall be such that they are negotiable by the Fire service Ladder from the ground floor.

G. FIRE FIGHTING WATER:

Underground water reservoir having water capacity at 1, 00, 000 ltrs. and overhead reservoir of 38, 400 ltrs. capacity exclusively for Firefighting purpose with replenishing arrangements @ 2000 lts./min. Preferably from two different sources of water supply shall be provided. The water reservoir shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

H. WATER LAYOUT SYSTEM:

1. The building shall be provided with Wet Riser at 150mm. internal diameter Pipe Line with provision of landing valves at the Staircase landings / half landings at the rate of one such riser for 1000 Sq.m. of floor area. The system shall be so designed that shall be kept charged with Water all the time under pressure and capable to discharge 2850 lts/min. at the ground floor level outlet and minimum 900 lts/min. at the top most outlet. In both cases the running pressure shall not be less than 3.5Kgs/Sq.cm. All other requirements shall conforming I.S. 3844 - 1989.
2. Provision for Hose Reel units on swiveling drum in conjunction with Wet Riser shall be made near each lading valves.
3. Yard Hydrant / Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.

I. FIRE PUMP:

Provision of the Fire Pump shall have to be made to supply water at the rate-designed pressure and discharge into the Water based system, which shall be installed in the building. One such pump shall always be kept on stand-by be of diesel driven type.

Provision of Jockey Pump shall also have to be made to keep the Water based system under pressurized condition at all the time. All the pumps shall be incorporated with both manual and auto starting facilities. The suction of pumps shall preferably of positive type or in case of negative suction the system shall be wet riser-cum-down comer with suitable terrace pump with overhead tank.

J. SPRINKLER INSTALLATION:

The automatic Sprinkler installation shall be provided in assembly areas of the building as per I.S. 9972 and alarm gong to be incorporated along with the sprinkler system.

**K. ELECTRICAL INSTALLATION & DISTRIBUTION:**

- 1 The electrical installation including transformers, Switch Gears, Main & Meters etc. and the distribution system of the premises shall be made satisfying the code of practice for Fire safety in general building as laid down in I.S. specification 1946 - 1982.
- 2 The vertical & horizontal ducts shall be sealed at all floor level by fire resisting materials.
- 3 The electrical installation shall be adequately protected with CO<sub>2</sub>/D.C.P.
- 4 All electrical installation viz. Transformer Switch Gear L. T., H. T. rooms shall be protected with both auto detection and suppression systems as per suitability.

**5 Alternative Power Supply :**

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

**L. DETECTION, ALARM AND SUPPRESSION SYSTEM:**

1. Addressable analogue manually operated Electrical Fire Alarm system with at least three numbers of break glass type call boxes fitted with Hooters along with public address system, at each floor connecting with visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building, other requirements of the system shall be made conforming I.S. 2189 - 1988.
2. Auto fire detection system with the help of Heat and smoke detector shall be installed in all places of below and preferably above false ceiling in assembly areas of the building. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.
3. Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will be sounded on the same floor and immediate alternate floor.

**4. Public Address System :-**

Public address system linked between all floors and Control Room shall have to be established.

**M. Air Conditioning System (If Any):**

1. Joints must be avoided in AC wires. It must be ensured that all AC units are comprehensively serviced before operation and filter is cleaned regularly through authorized service agency which increases cooling as well as results in less electric consumption.
2. Never use AC units on normal plug points or temporary extension boards except on covered MCB's.
3. Switch off air-conditioners, lights, fans, exhaust fans, heat convectors, fax machines, computer monitors, printers /scanners/UPS, inverters, photocopiers, TVs and other office equipment's when they are not in use. Switch on only those lights fans, air-conditioners or other equipment's which are required for functioning office. Do not leave air-conditioners, heat convectors, lights, fans and other electrical equipment's and gadgets in 'ON' position when not required.
4. Keep the doors / Windows of air-conditioned rooms close to avoid loss of conditioned air. Provide automatic door closers. Use air-conditioner fan/blowers and fans at low speed.
5. In summer reduce load on air-conditioners by putting curtains/blinds/shades on windows.

6. Window type air-conditioners/split type AC's being highly energy intensive equipment's; they should be serviced at least thrice in a year as per the recommendations of manufacturers, The servicing included cleaning of air filters, cleaning of condensers/cooling coil, service and oiling of fan motors, checking of fasteners, checking of electrical spares, checking of current/voltage and checking of room temperature and grill temperature.
7. Replace old air-conditioners which have out-lived their useful life i.e. 7 years as per Competent authorized agency maintenance manual 2012 and have become unserviceable with star rated Energy Efficient air conditioners.

N. FIRST AID FIRE FIGHTING SYSTEM:


First Aid firefighting arrangement in the style of placing suitable type of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190 - 1992.

O. GENERAL RECOMMENDATIONS:

- 1 Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.
- 2 Disposable type B. A. Musk to be kept always for emergency fire situation.
- 3 Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- 4 Floor numbers and directional sign of escape route shall be displayed prominently.
- 5 The occupant, employees and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.
- 6 Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.
- 7 A crew of trained Fireman under experienced officer shall be maintained round the clock for safety of the building.
- 8 Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
- 9 Each year a certificate is to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements and installation of the building.

On compliance of all the above Fire and Life safety recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installation, Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B.: Any deviation and changes the nature of use of the building in respect of the approved plan drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

  
Deputy Director (Head Quarter)  
West Bengal Fire & Emergency Services